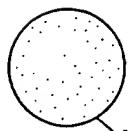
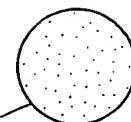


FIG.1



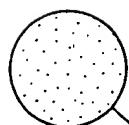
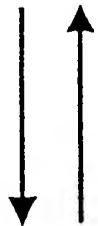
[ SEQ. ID NO: 3]

X-C-C-T-T-G-A-G-A-T-T-T-C-C-C-T-C  
5' 3'



G-G-A-A-C-T-C-T-A-A-A-G-G-G-A-G-X  
3' 5'

[ SEQ. ID NO: 4]



X-C-C-T-T-G-A-G-A-T-T-T-C-C-C-T-C  
G-G-A-A-C-T-C-T-A-A-A-G-G-G-A-G-X

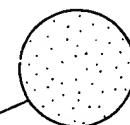


FIG.2

FOREGO = STAGE 2 600

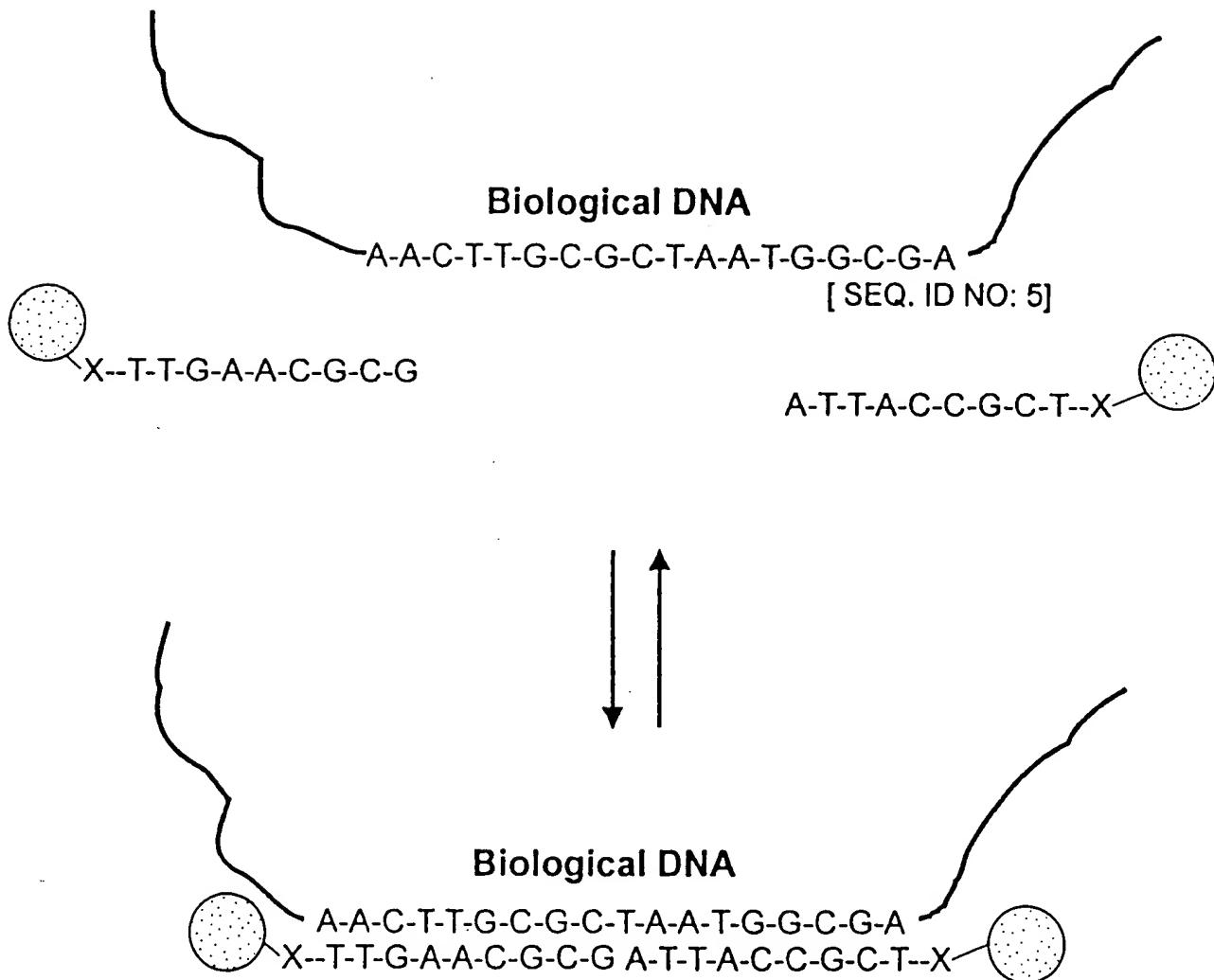
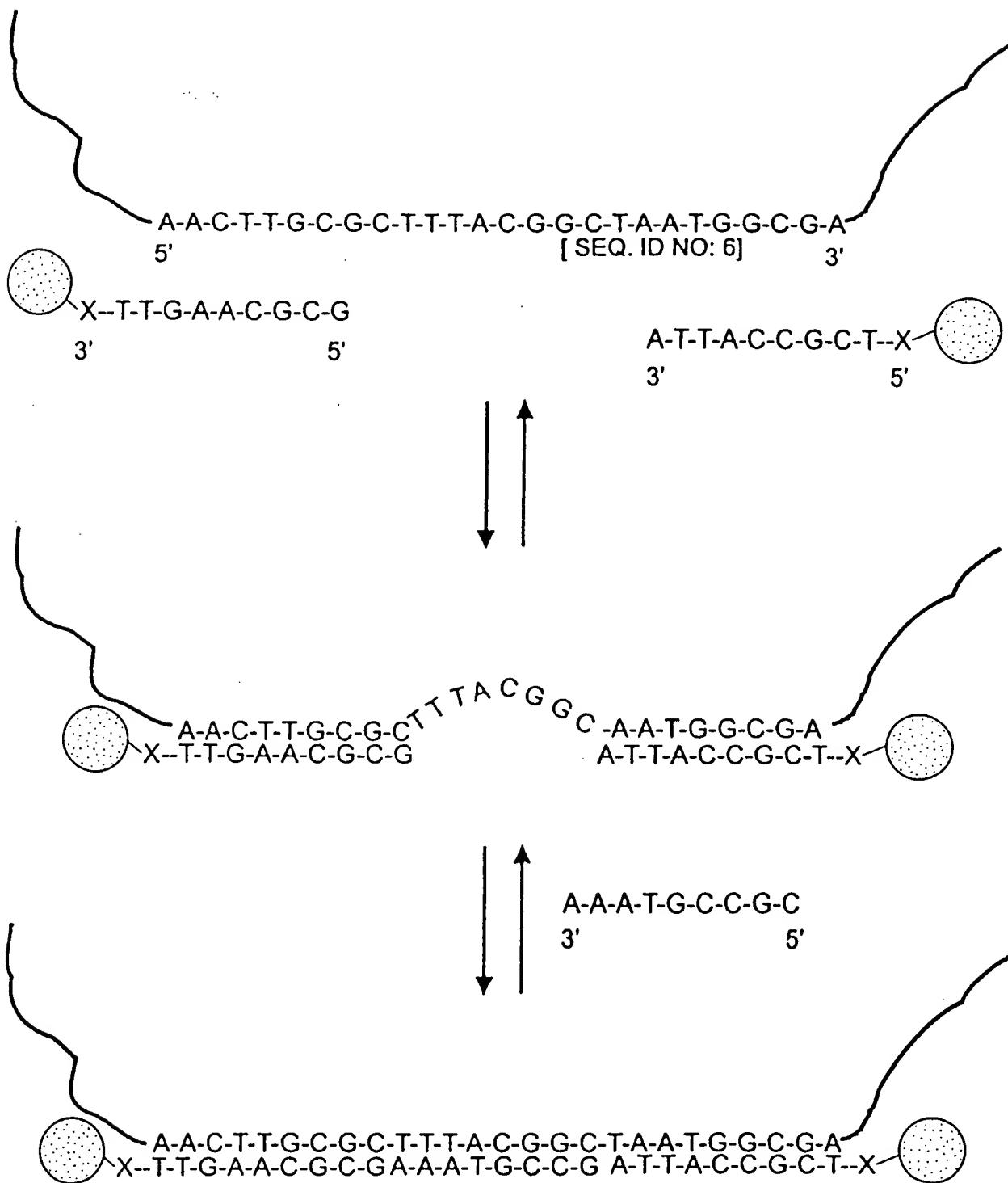


FIG. 3



**FIG. 4**

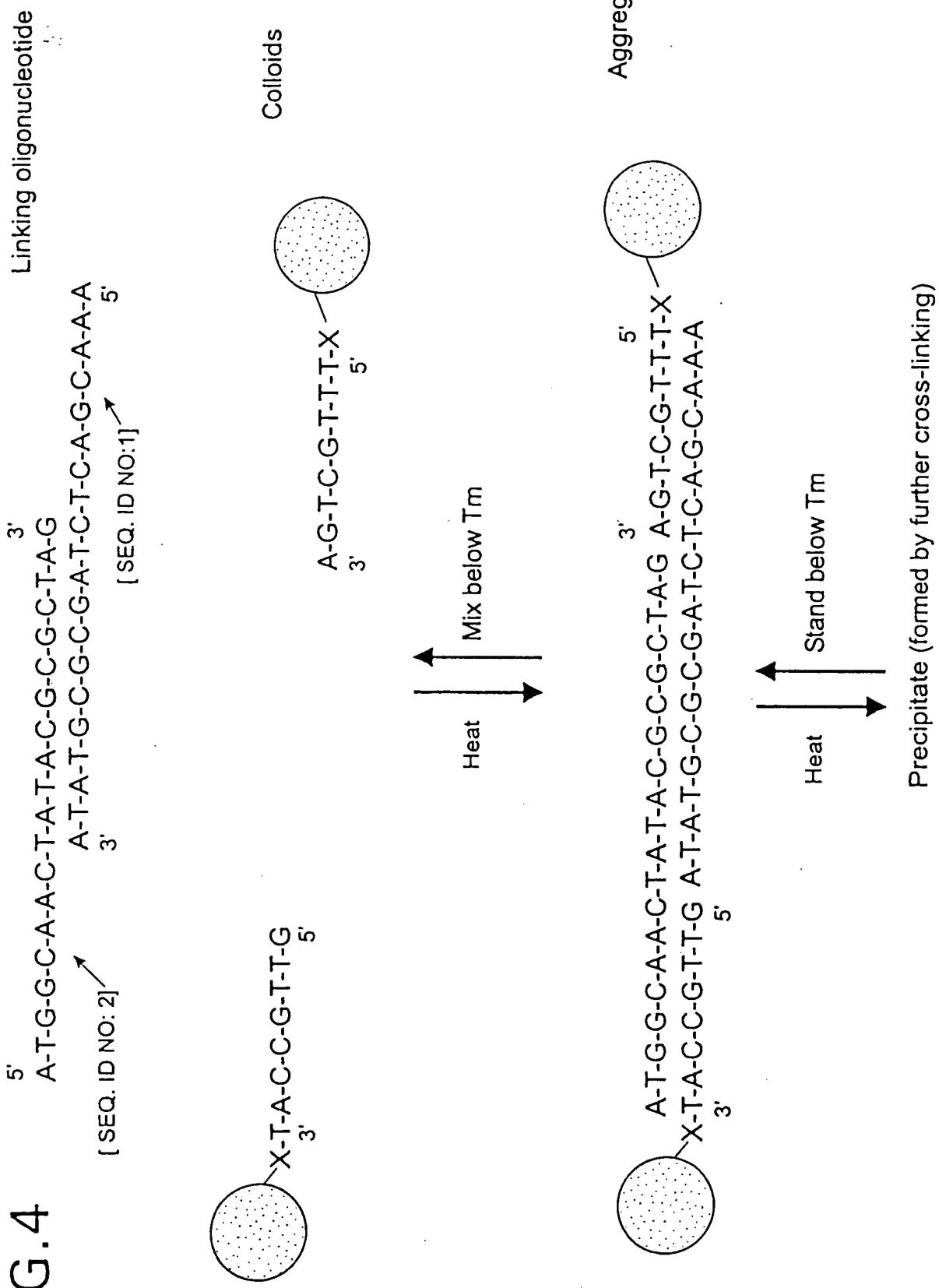
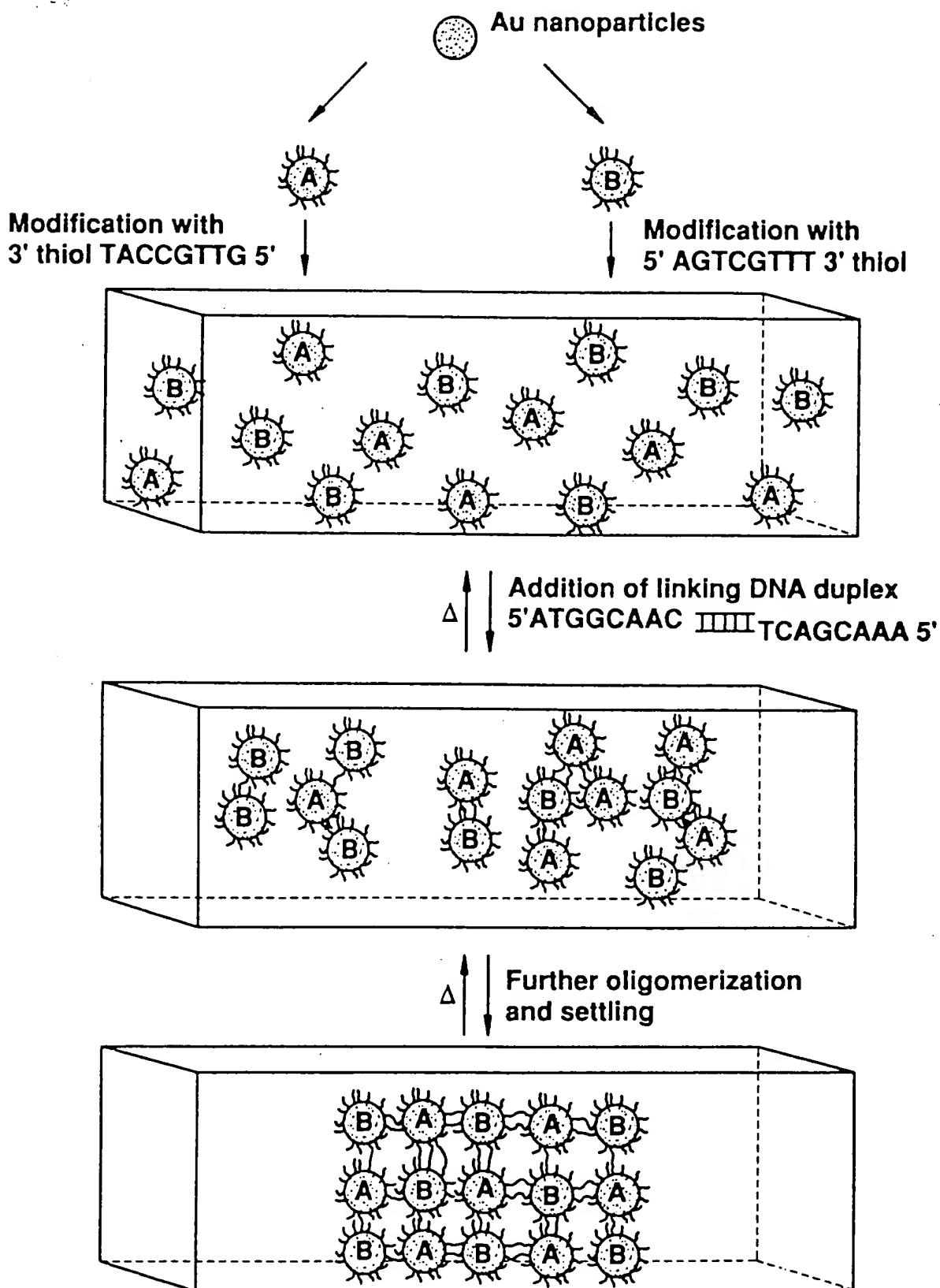


FIG.5



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FIG. 6A



**FIG. 6B**



FIG.6C

FIG. 7

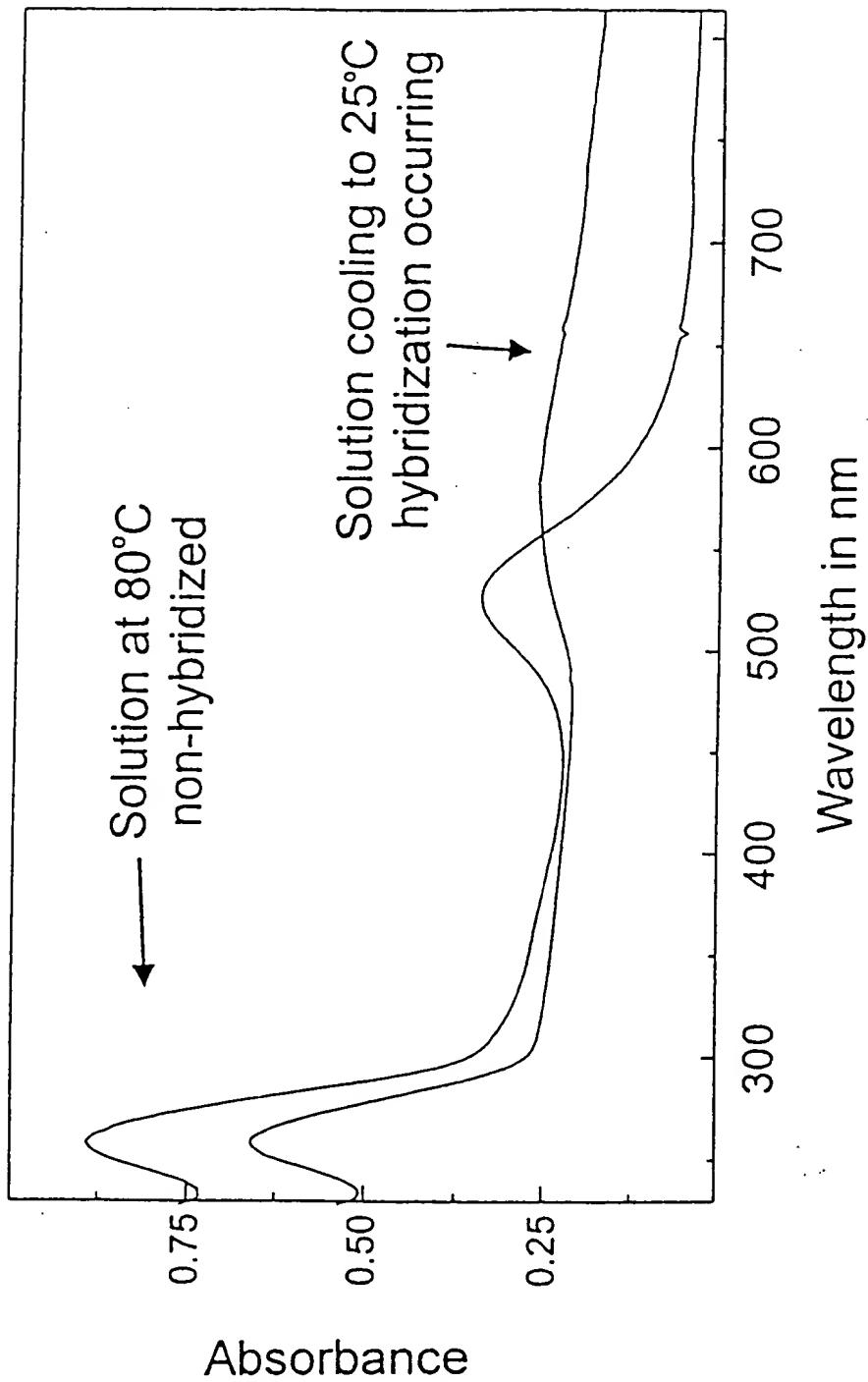


FIG. 8A

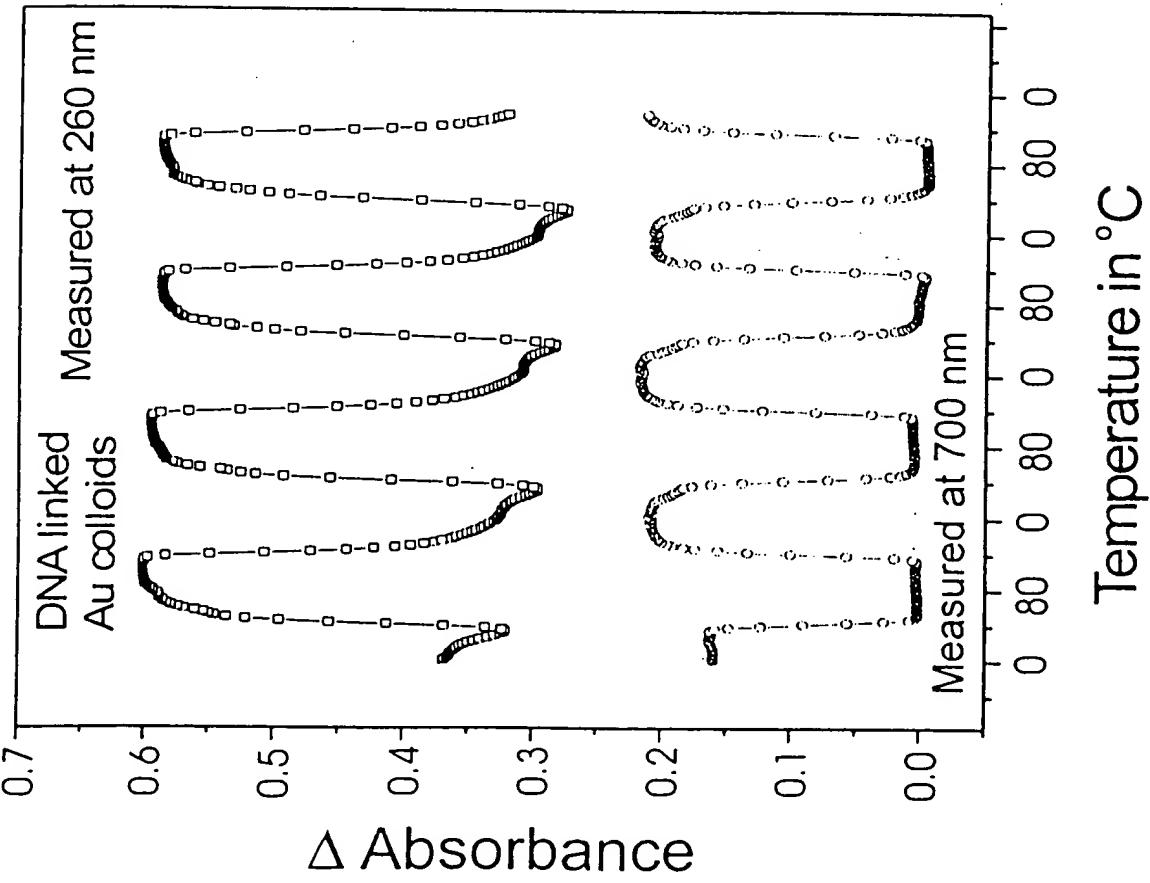
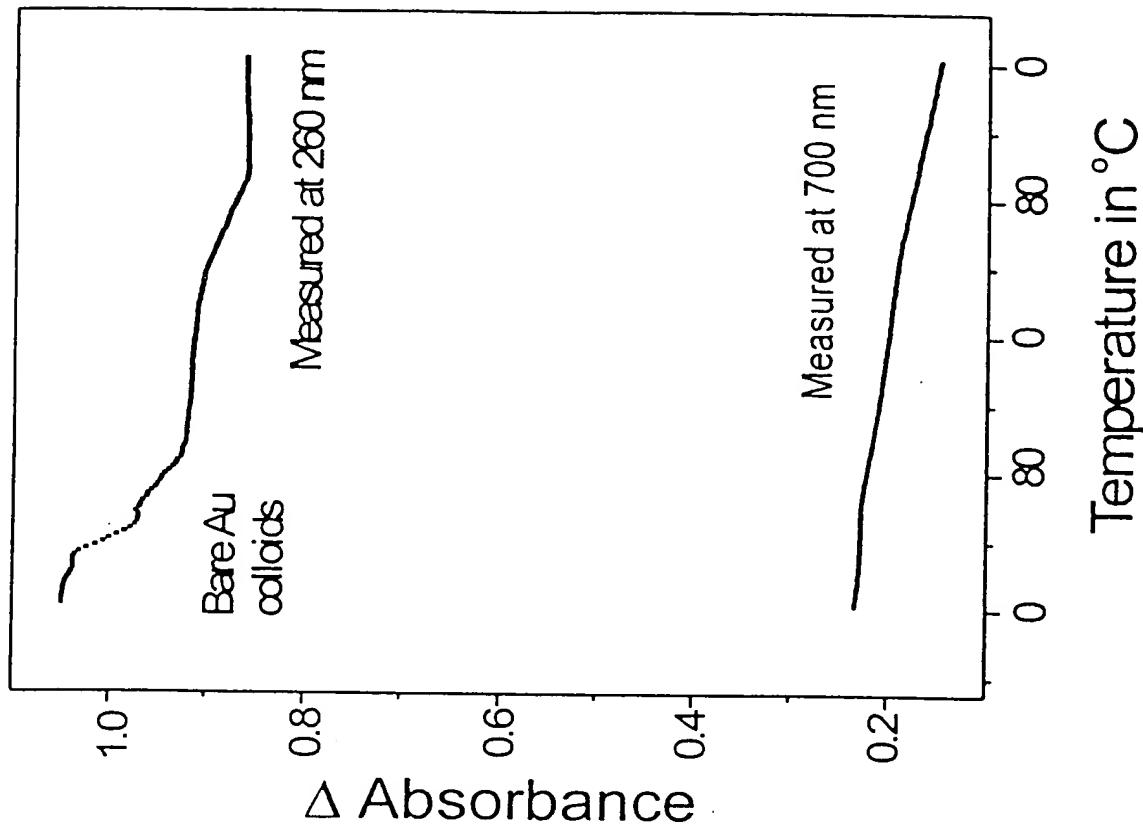


FIG. 8B



8 / 2 2

9 / 22



FIG.9A

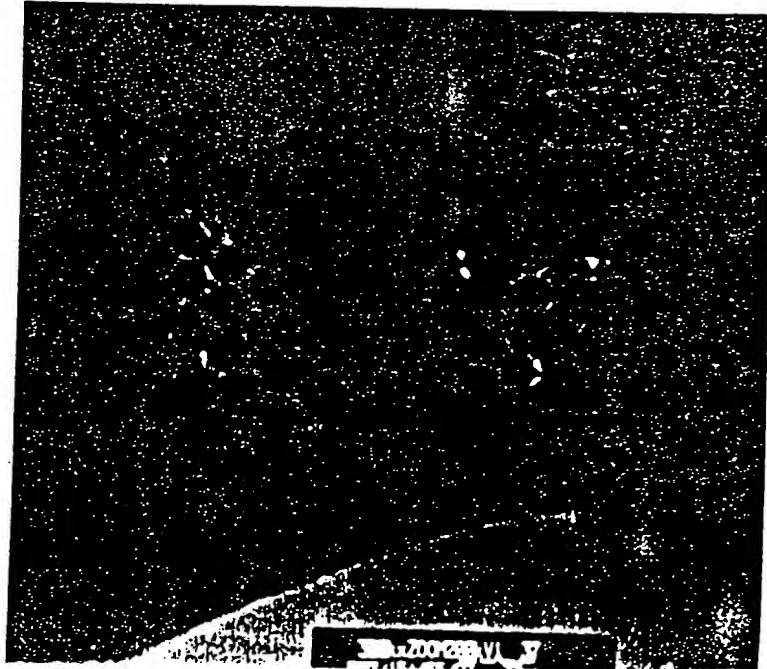


FIG.9B

FIG. 10

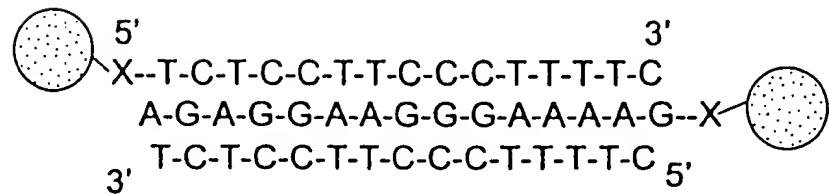
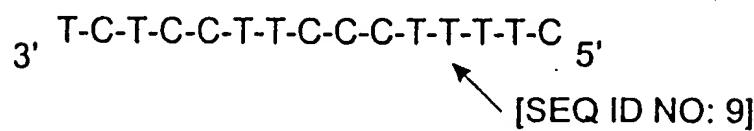
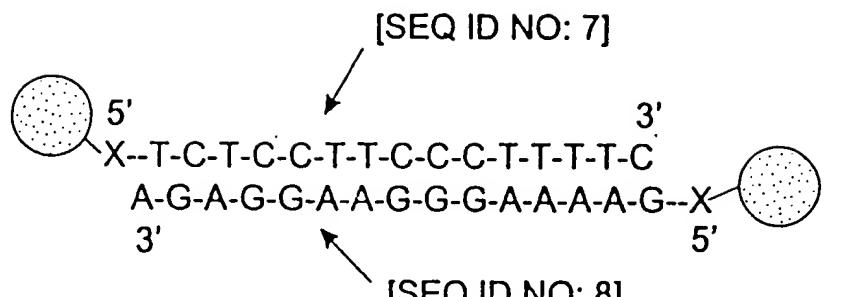
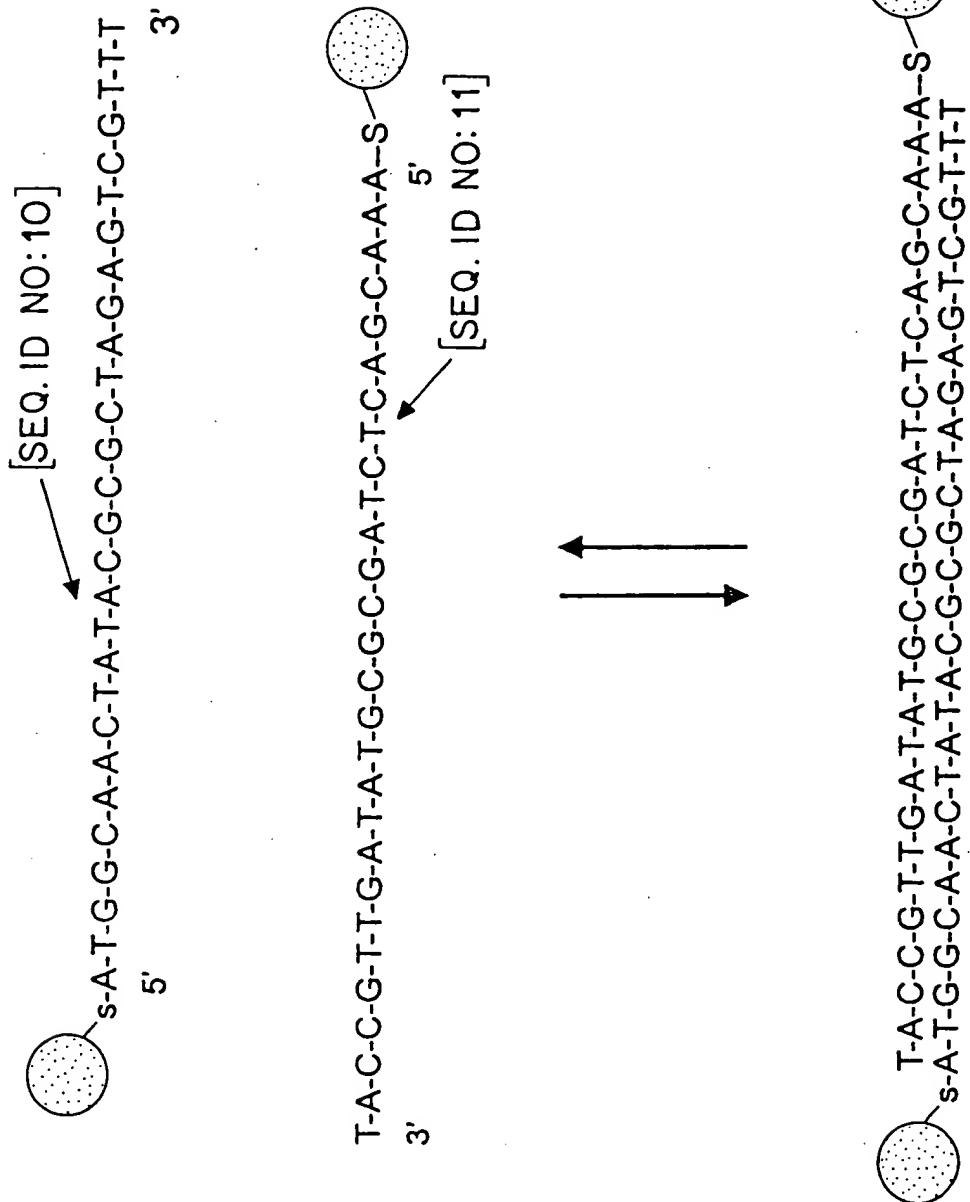


FIG. 11



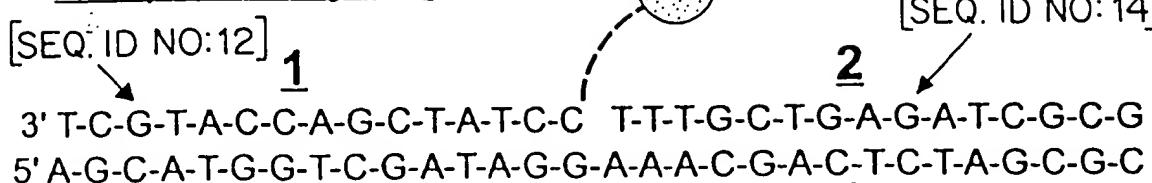
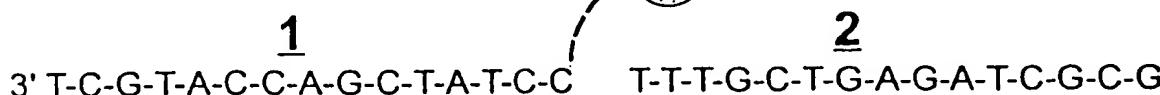
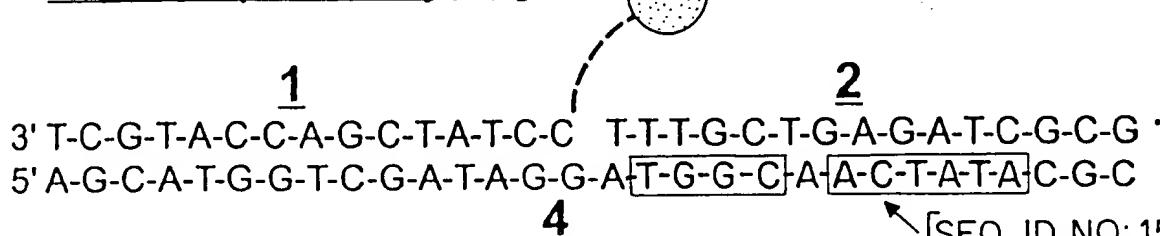
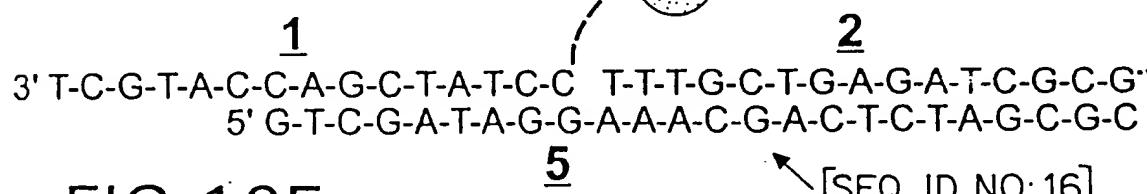
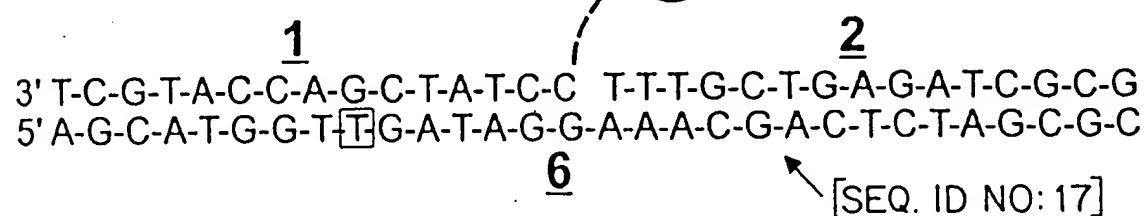
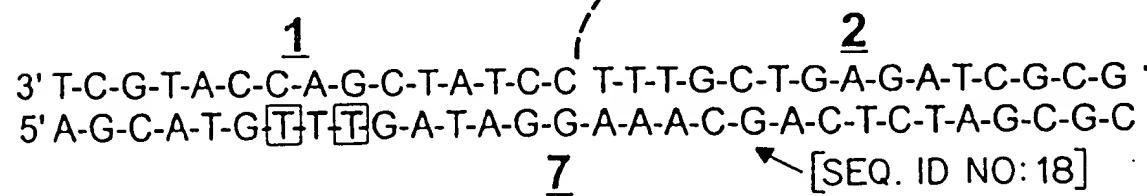
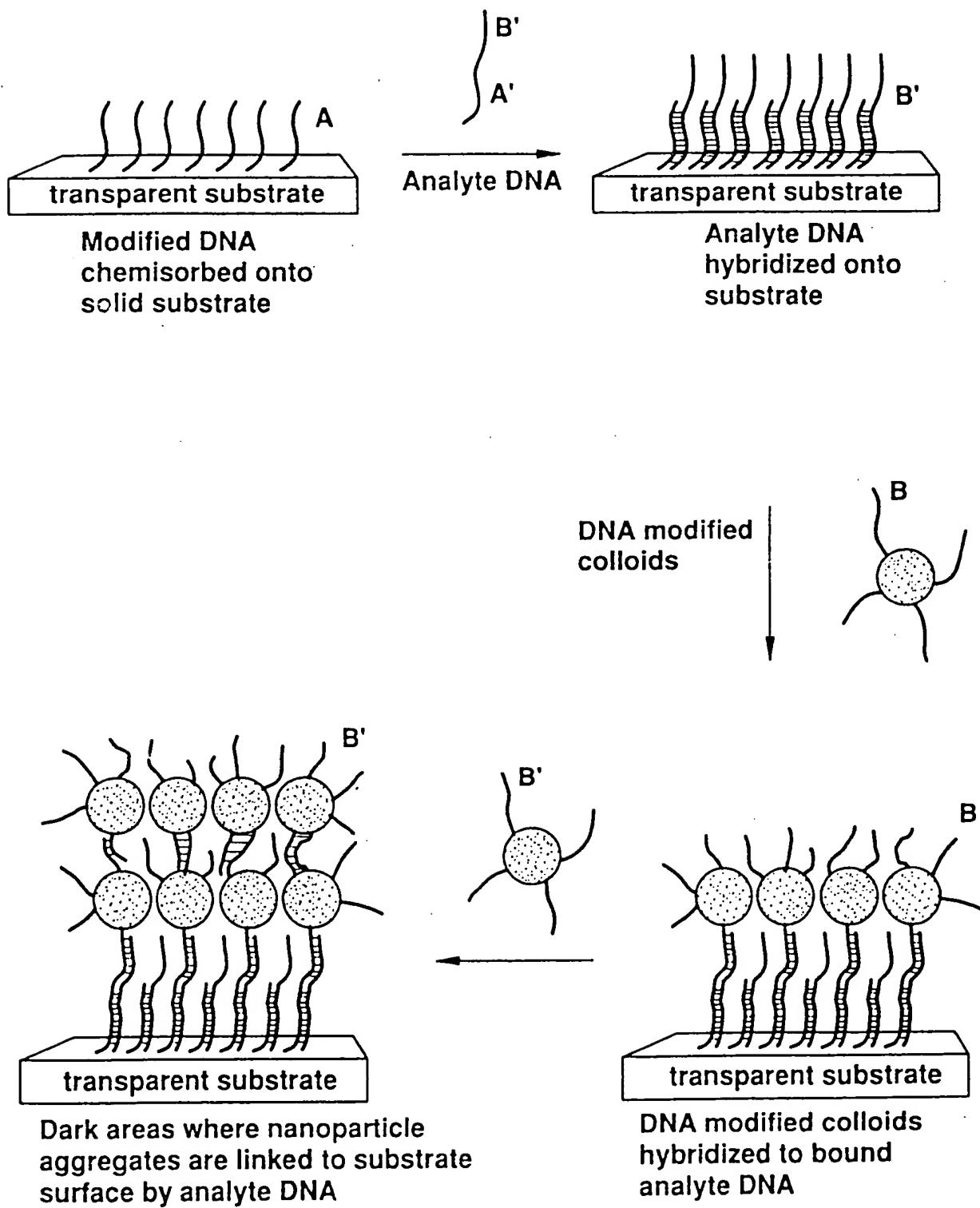
**FIG. 12A**Complementary Target**FIG. 12B**Probes without Target**FIG. 12C**Half Complementary Target**FIG. 12D**Target - 6 bp**FIG. 12E**One bp Mismatch**FIG. 12F**Two bp Mismatch

FIG.13A



1 4 7 2 2

FIG. 13B

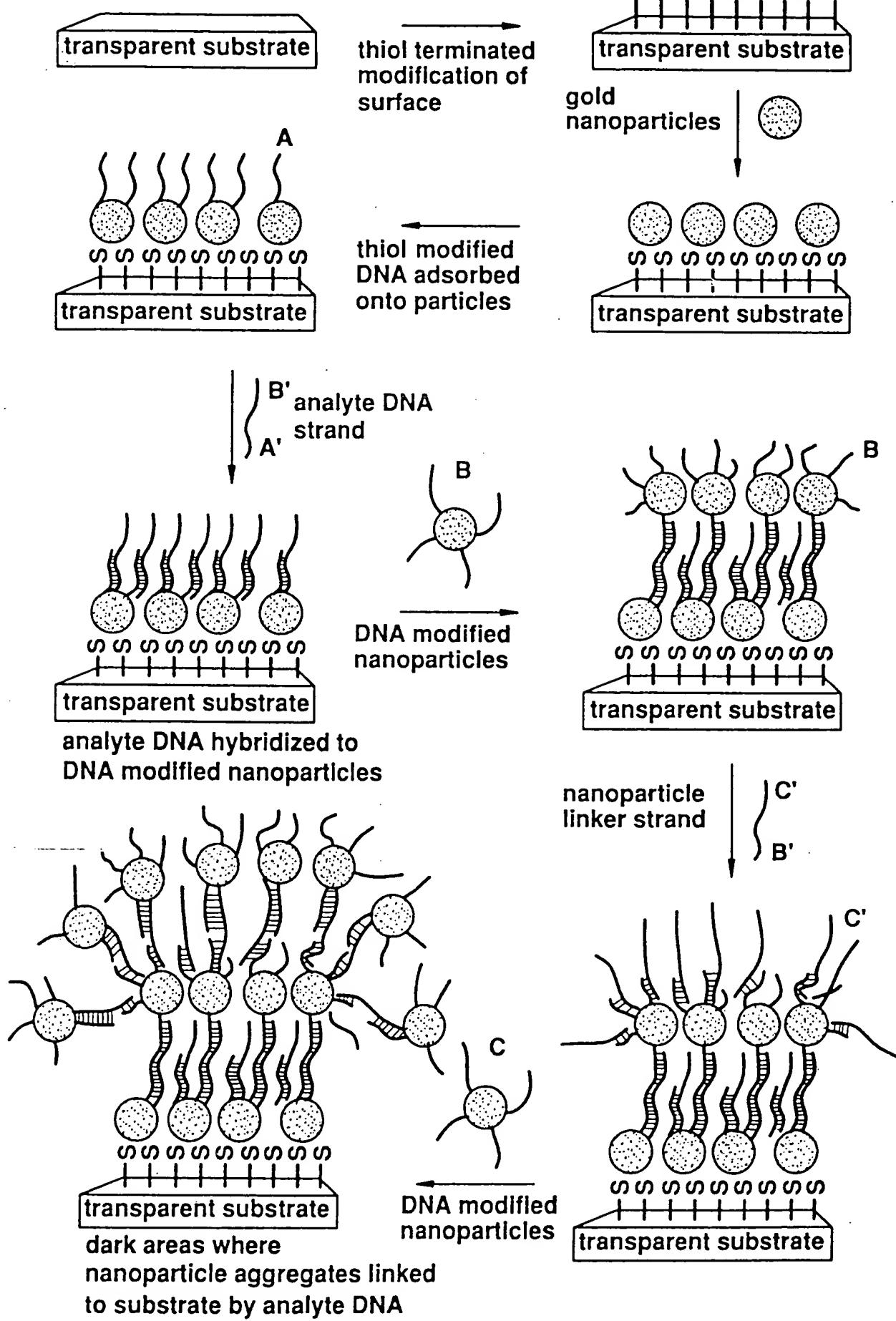


FIG.14A

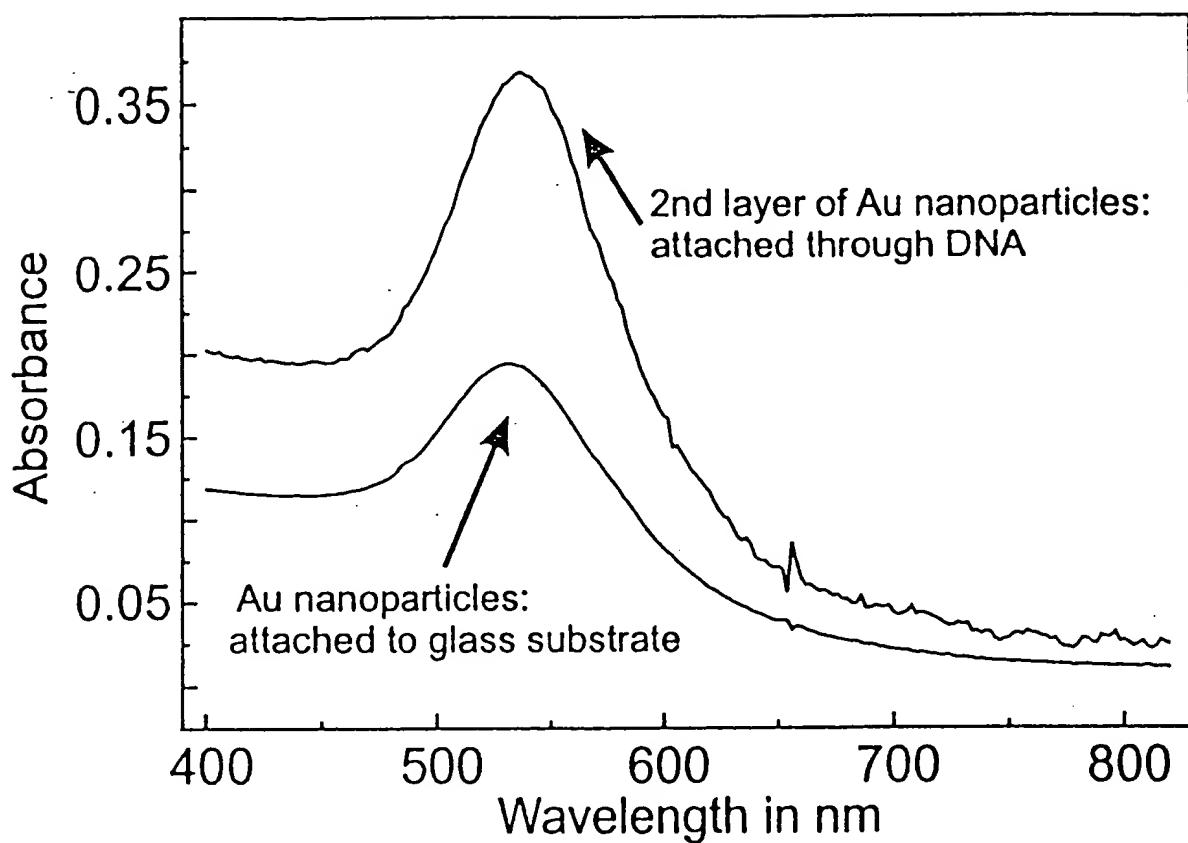
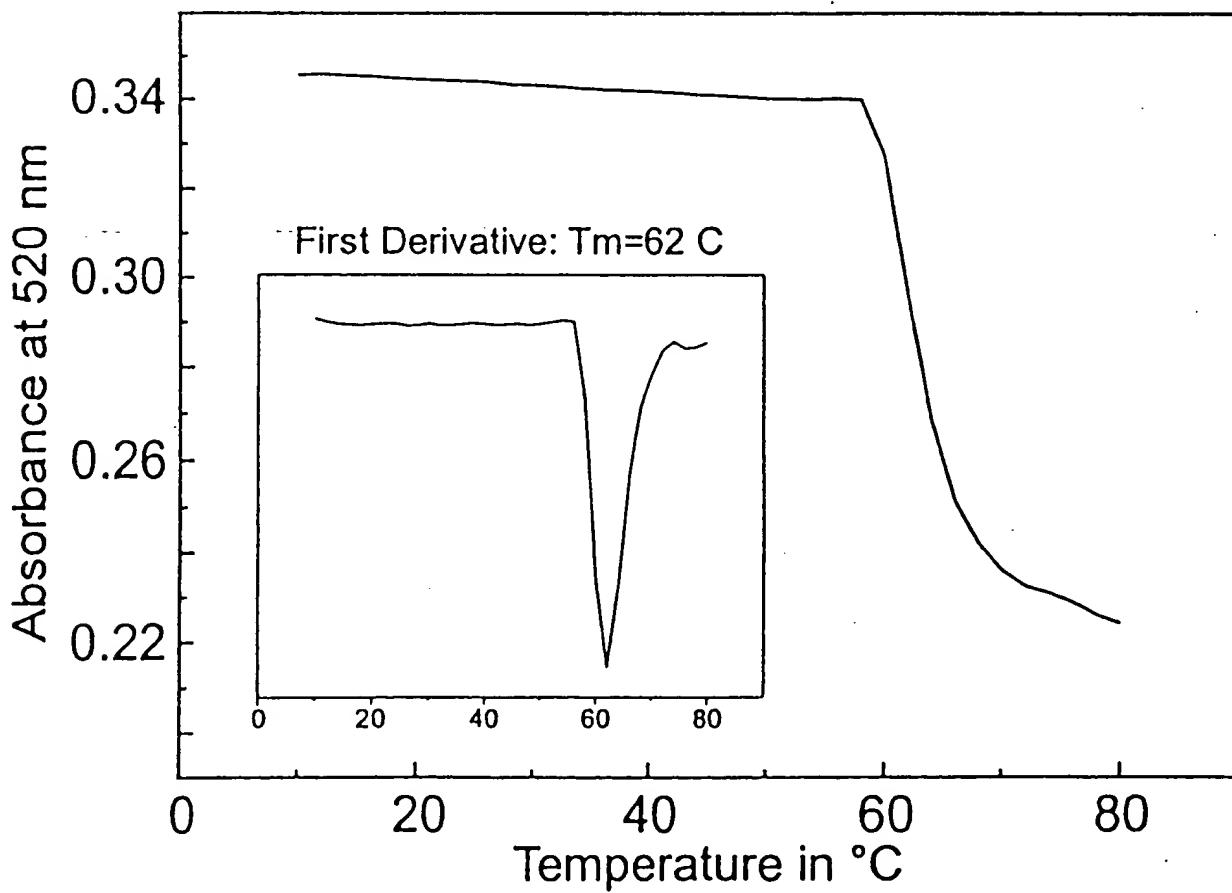


FIG.14B



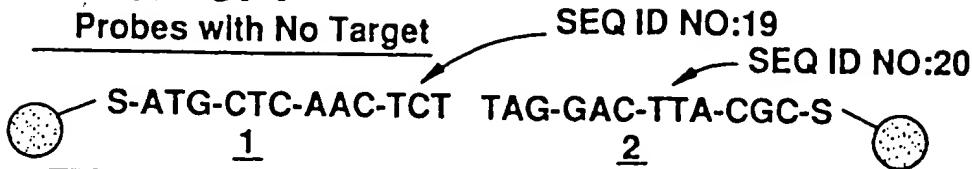
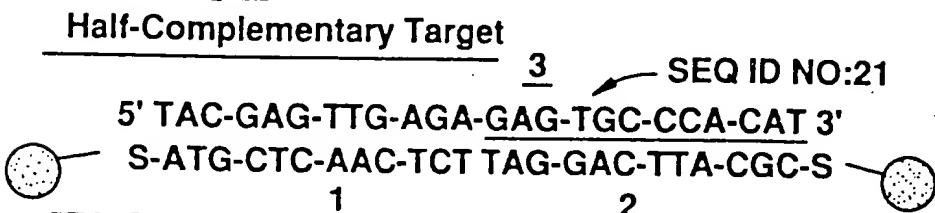
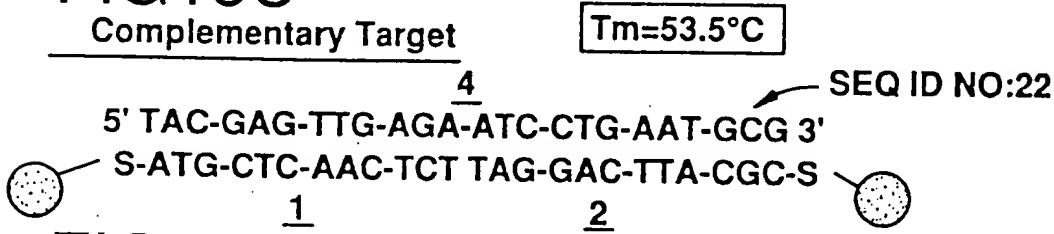
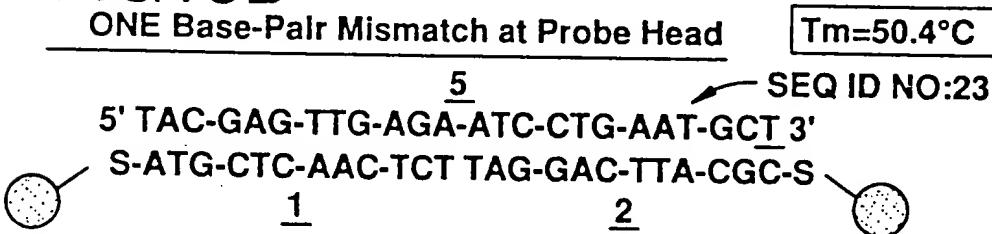
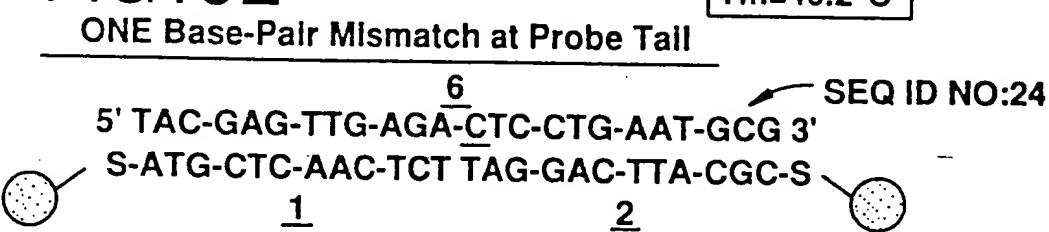
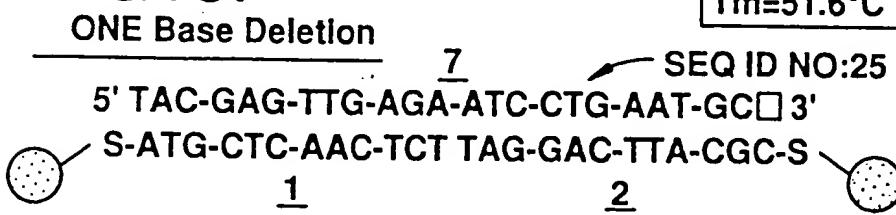
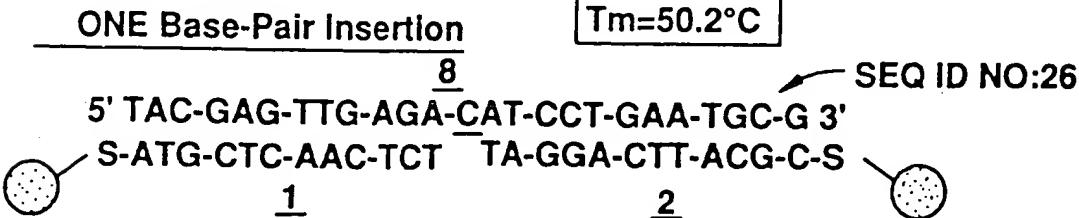
**FIG15A****FIG15B****FIG15C****FIG15D****FIG15E****FIG15F****FIG15G**

FIG. 16A

24 Base Template

5' TAC-GAG-TTG-AGA-ATC-CTG-AAT-GCG 3'  
—S-ATG-CTC-AAC-TCT TAG-GAC-TTA-CGC-S —  
1  
2

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FIG. 16B      48 Base Template with Complementary 24 Base Filler

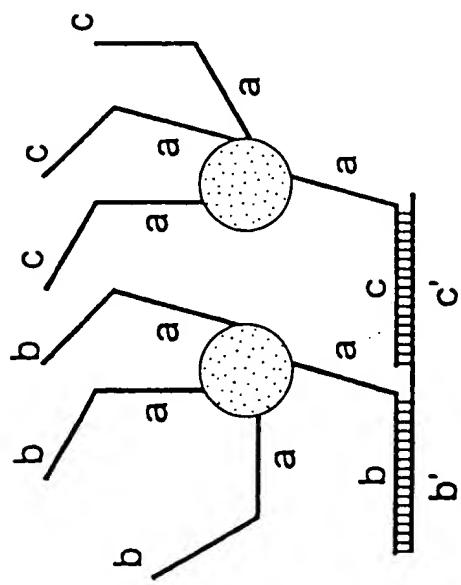
5' TAC-GAG-TTG-AGA-CCG-TTA-AGA-CGA-GGC-AAT-CAT-GCA-ATC-CTG-AAT-GCG 3'  
—S-ATG-CTC-AAC-TCT GGC-AAT-TCT-GCT-CCG-TTA-GTA-CGT TAG-GAC-TTA-CGC-S —  
1  
2

FIG. 16C

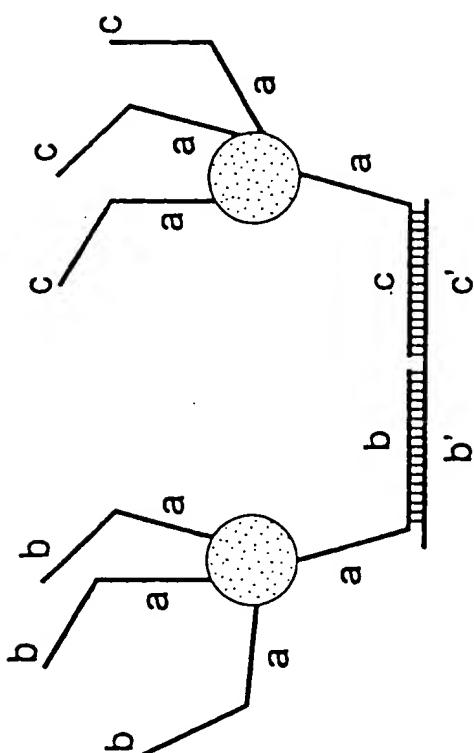
72 Base Template with Complementary 48 Base Filler

5' TAC-GAG-TTG-AGA-CCG-TTA-AGA-CGA-GGC-AAT-CAT-GCA-TAT-TGG-A-CGC-TTT-ACG-GAC-AAC-ATC-CTG-AAT-GCG 3'  
—S-ATG-CTC-AAC-TCT GGC-AAT-TCT-GCT-CCG-TTA-GTA-CGT-TAA-CCT-GCC-CTG-TTG TAG-GAC-TTA-CGC-S —  
1  
2

**FIG. 17A**



**FIG. 17B**



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**FIG. 17C**

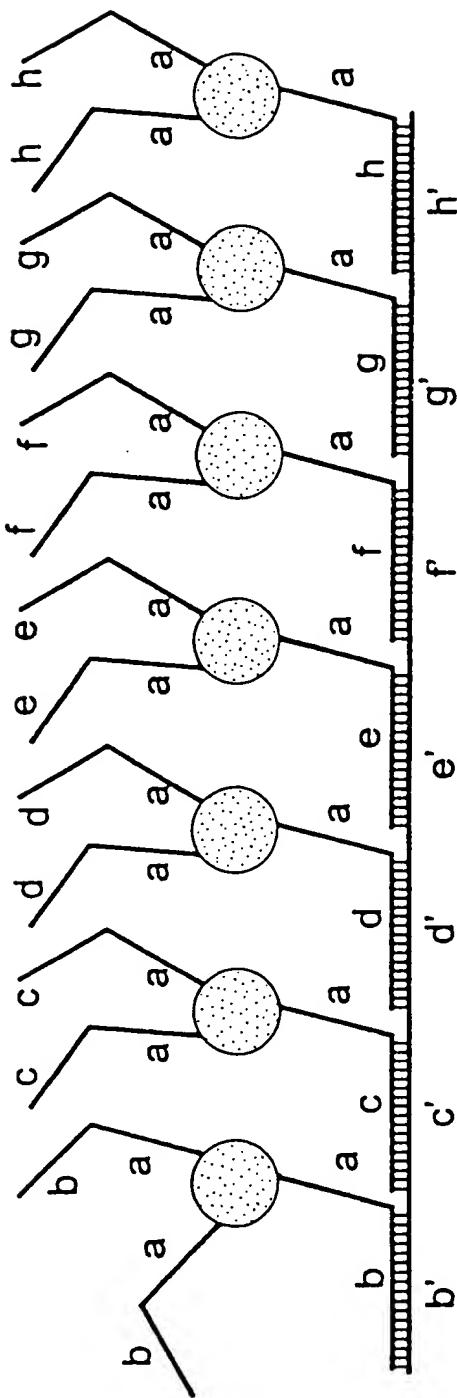


FIG. 17D

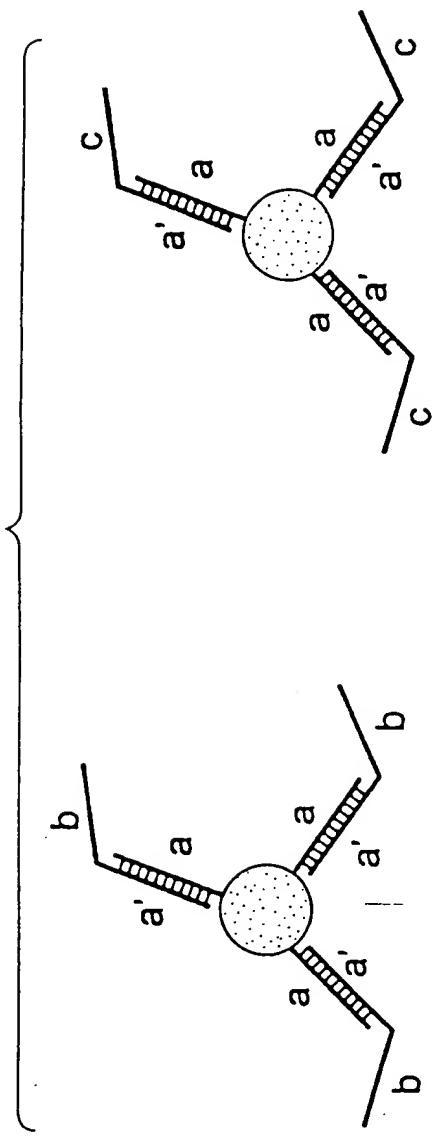


FIG. 17E

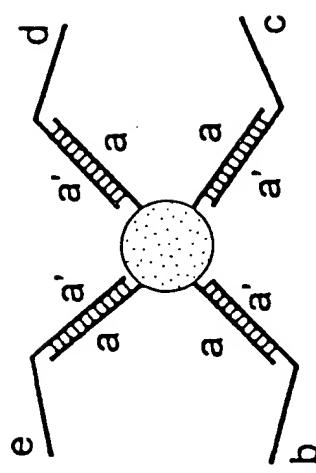


FIG. 18

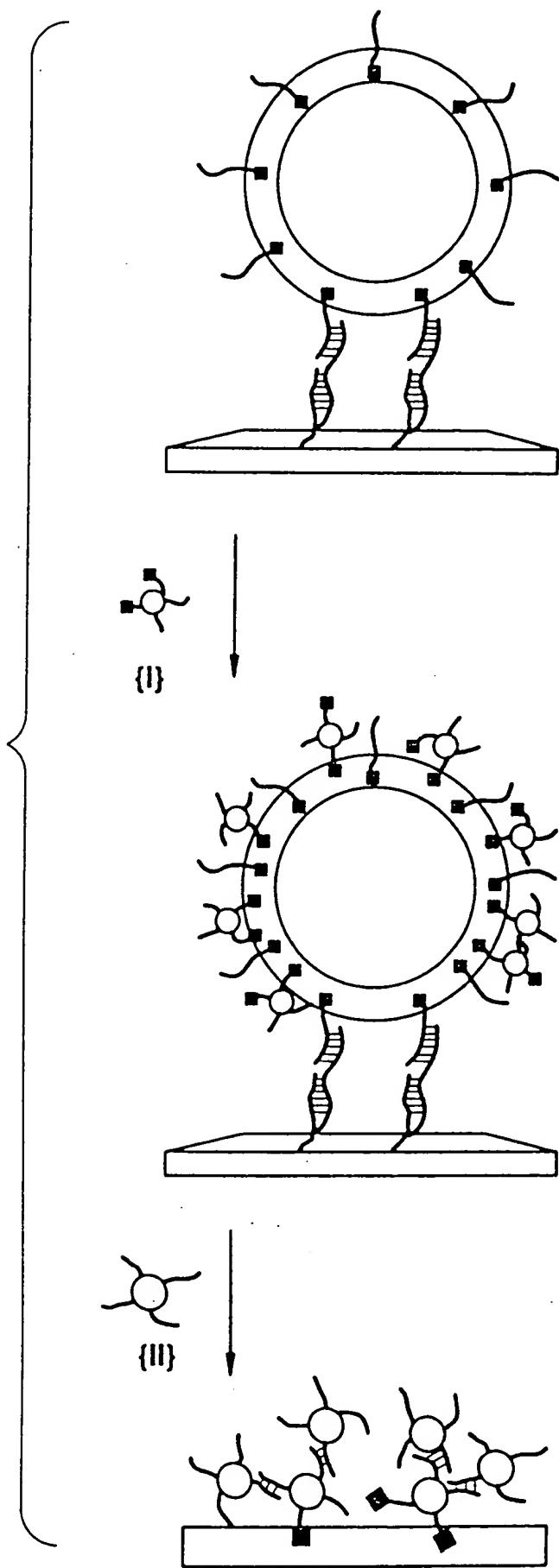


FIG. 19A

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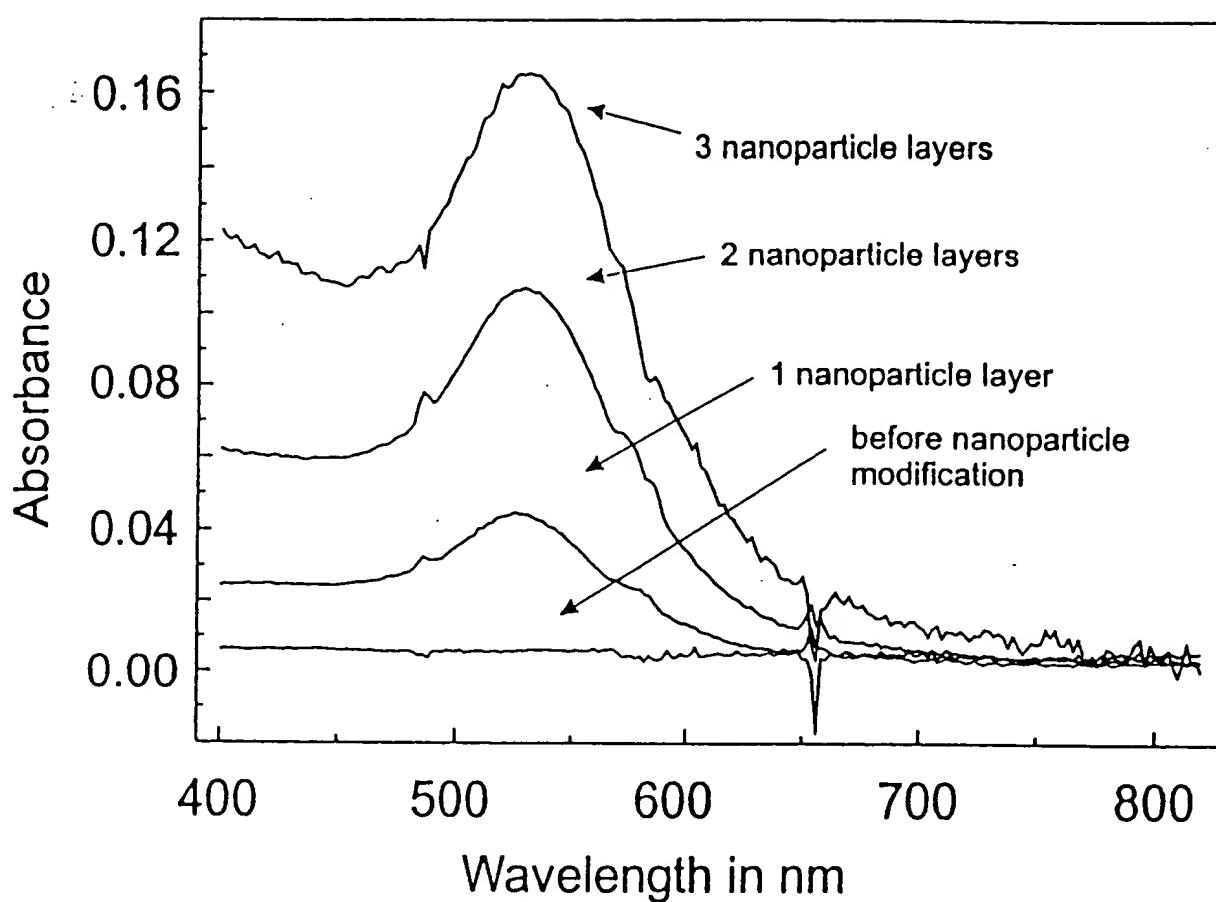


FIG. 19B

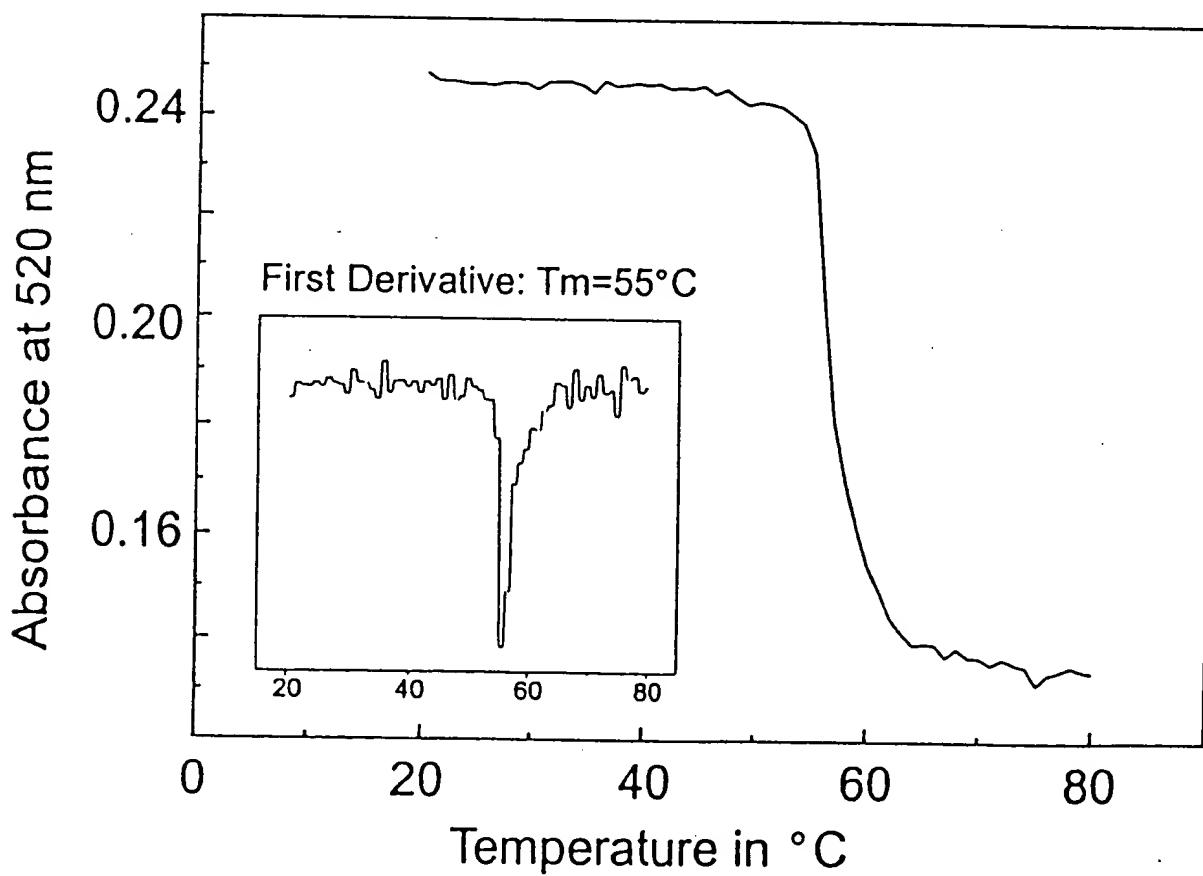


FIG.20A

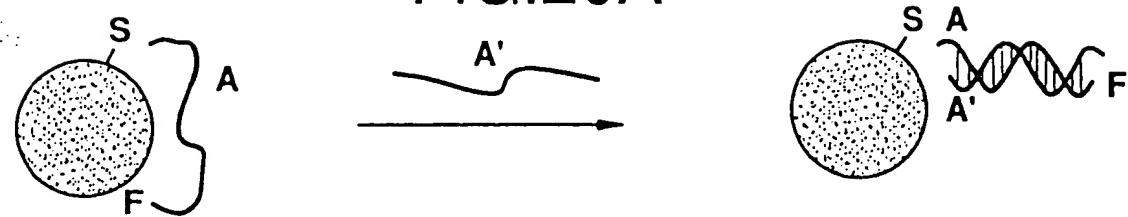
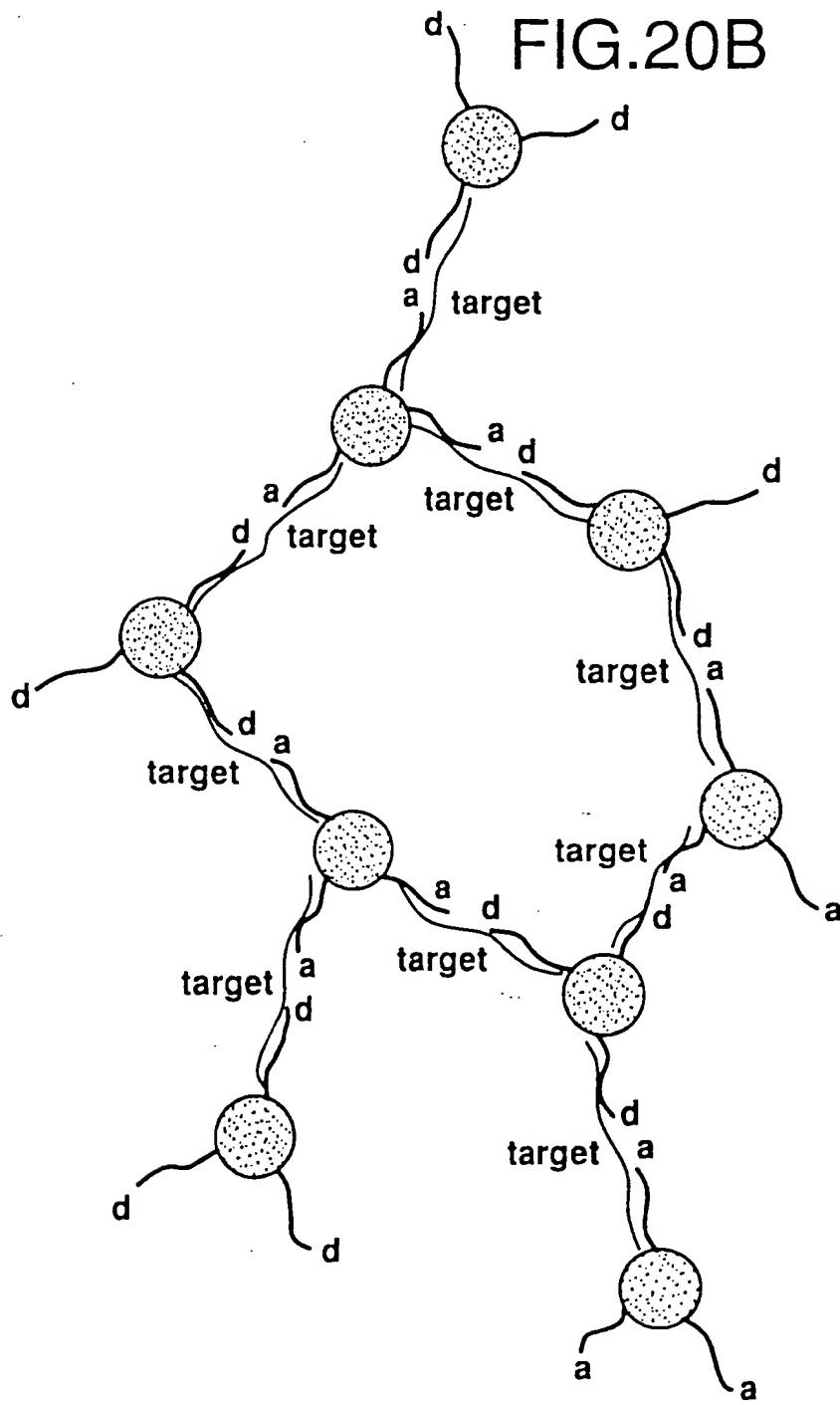
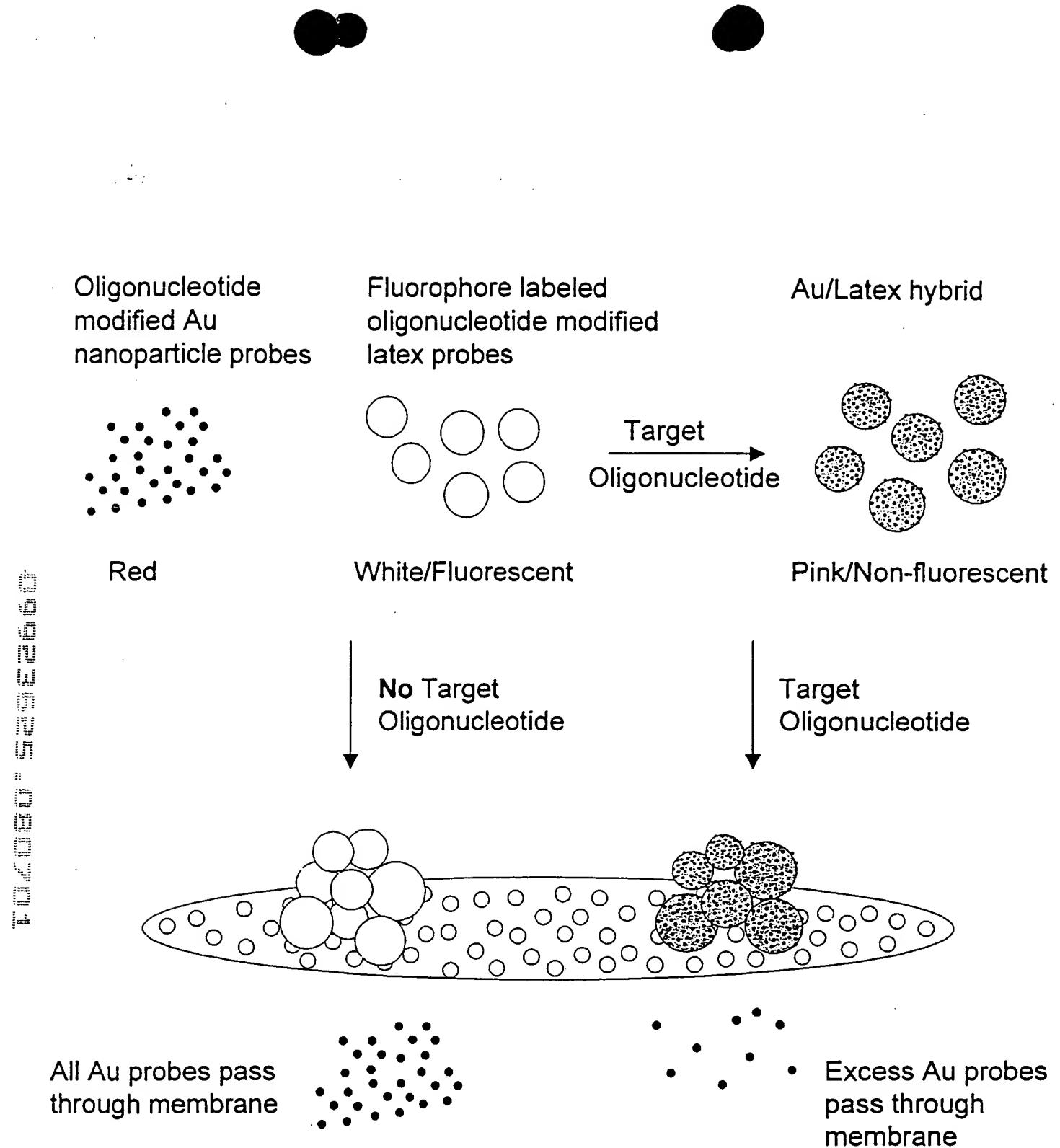


FIG.20B

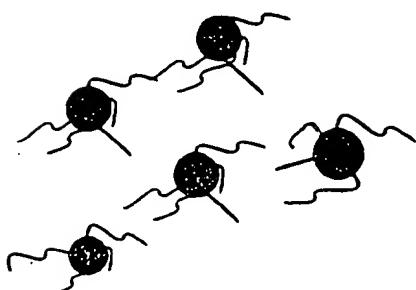




## FIGURE 21

## FIGURE 22

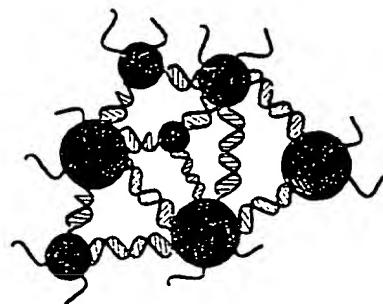
## Fluorescent Nanoparticle Probes



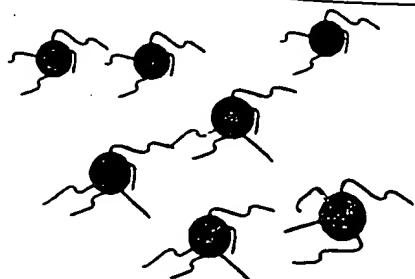
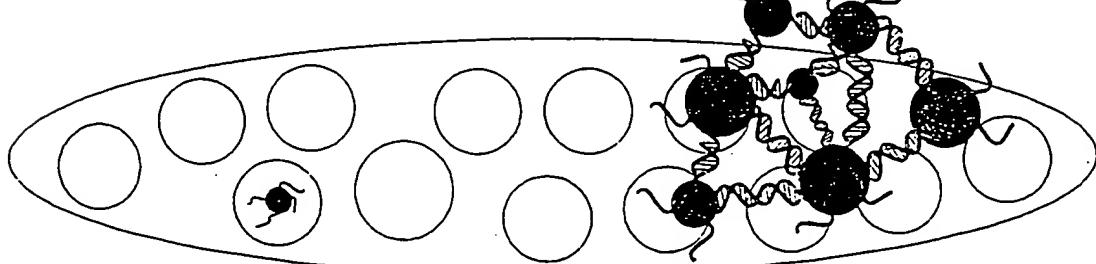
## No Target Oligonucleotide

Target  
Oligonucleotide

## Fluorescent Cross-linked Aggregates



## Target Oligonucleotide



The fluorescent nanoparticle probes pass through the membrane

The fluorescent cross-linked aggregates are retained by the membrane

## Anthrax PCR Product

5' G GCG GAT GAG TCA GTA GTT AAG GAG GCT CAT AGA GAA GTA ATT AAT  
3' C CGC CTA CTC AGT CAT CAA TTC CTC CGA GTA TCT CTT CAT TAA TTA

TCG TCA ACA GAG GGA TTA TTG TTA AAT ATT GAT AAG GAT ATA AGA AAA  
AGC AGT TGT CTC CCT AAT AAC AAT TTA TAA CTA TTC CTA TAT TCT TTT

ATA TTA TCC AGG GTT ATA TTG TAG AAA TTG AAG ATA CTG AAG GGC TT 3'  
TAT AAT AGG TCC CAA TAT AAC ATC TTT AAC TTC TAT GAC TTC CCG AA 5'

141 mer Anthrax PCR product [SEQ ID NO:36]

3' CTC CCT AAT AAC AAT  
SEQ ID NO: 37

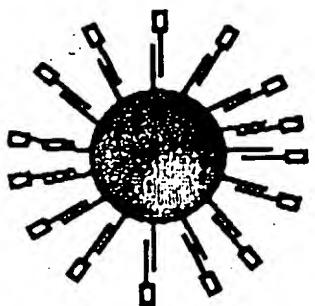
3' TTA TAA CTA TTC CTA  
[SEQ ID NO: 38]

Oligonucleotide-Nanoparticle Probes

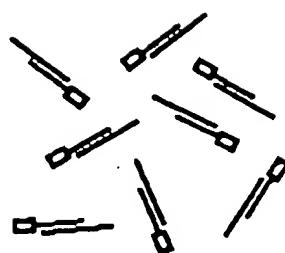
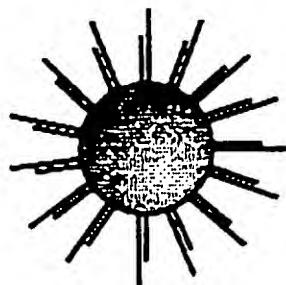
### Blocker Oligonucleotides

3' C CGC CTA CTC AGT CAT CAA TTC CTC CGA GT	[SEQ ID NO: 39]
3' A TCT CTT CAT TAA TTA AGC AGT TGT	[SEQ ID NO: 40]
3' TAT TCT TTT TAT AAT AGG TCC CAA TAT	[SEQ ID NO: 41]
3' AAC ATC TTT AAC TTC TAT GAC TTC CCG AA	[SEQ ID NO: 42]

FIGURE 23



Target  
→



Satellite Probe

Detection Signal

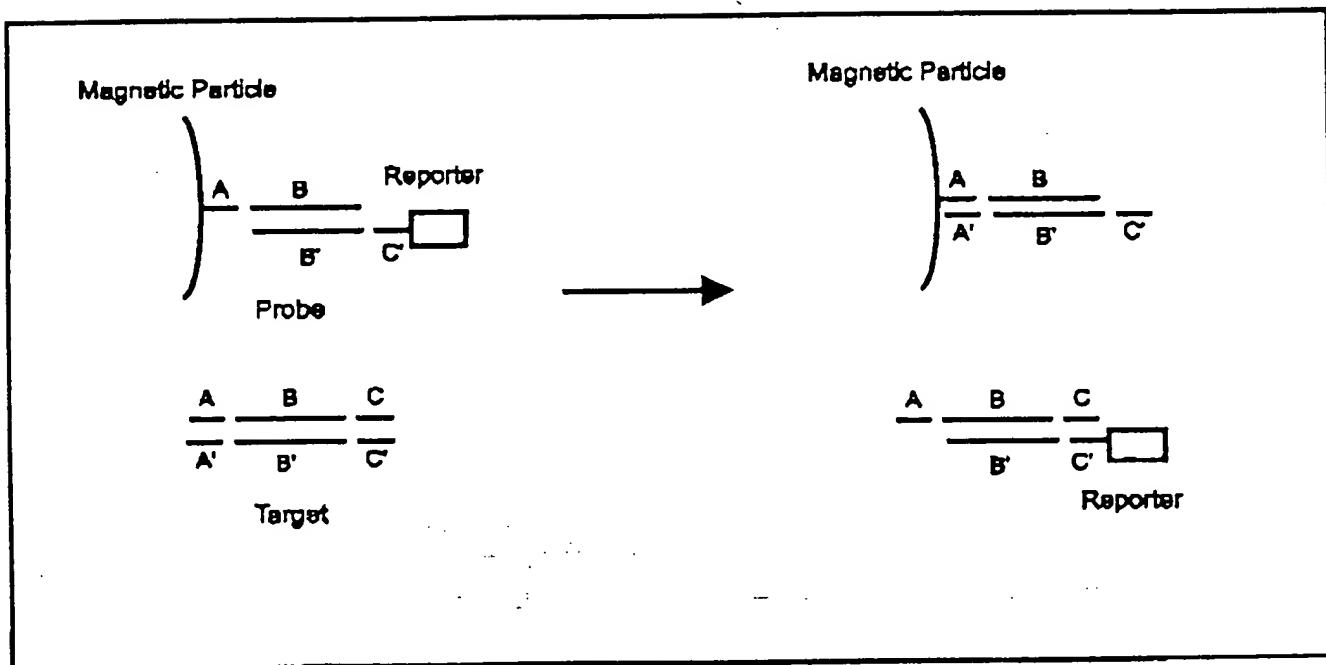


FIGURE 24